

Instructions

for Installing the

Holley Hot Plate Vaporizer

[Model 705]

for the **Ford Car**

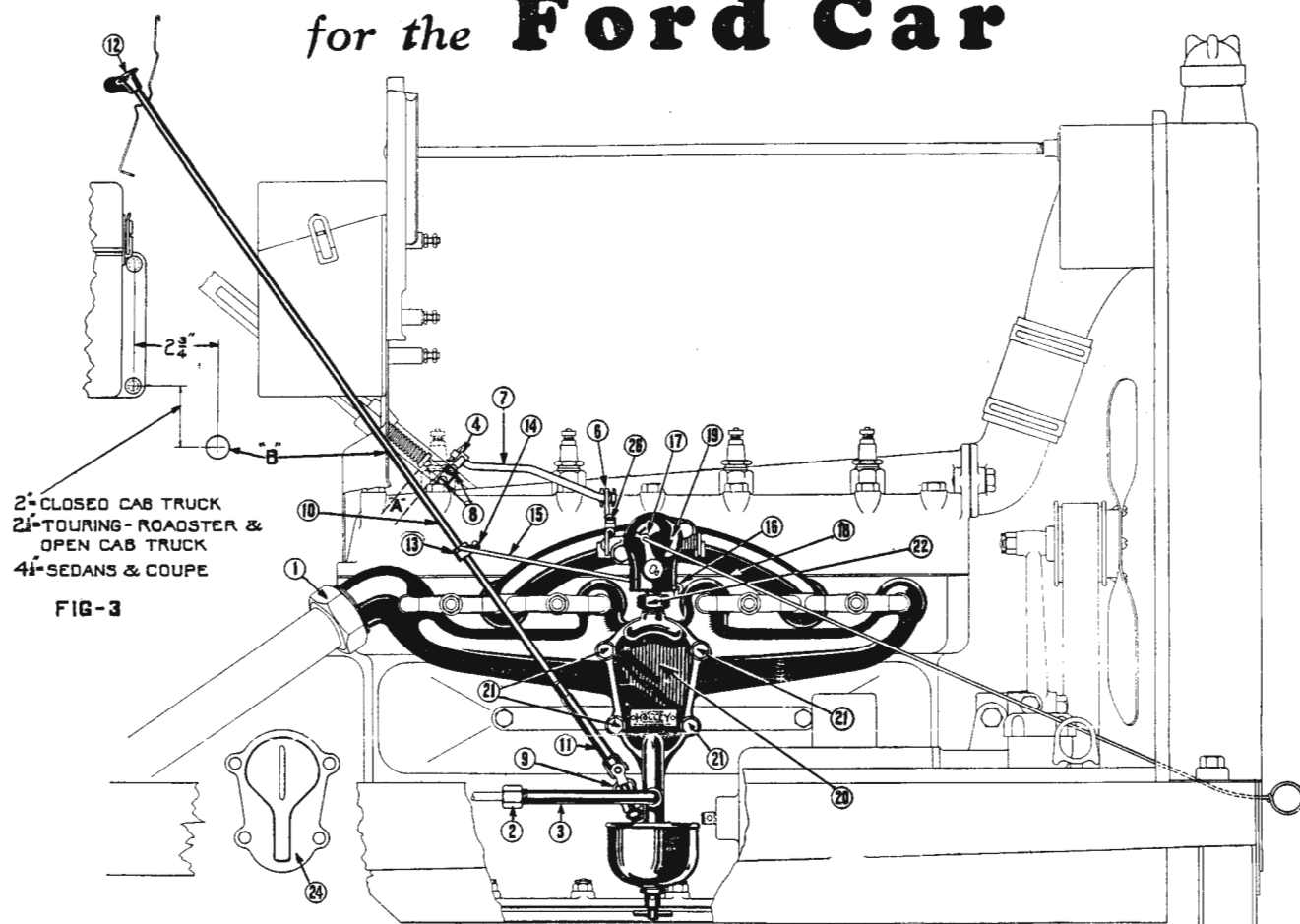


FIG-3

FIG-1

Removing Old Carburetor, Manifolds, etc. The carburetor equipment on car must be removed. Disconnect exhaust manifold from pipe by backing off large nut, remove throttle rod to carburetor, withdrawing it from between cylinders, disconnect and take off choke and needle valve controls, shut off gasoline under tank, back off gasoline line

packing nut at old carburetor. Save nut and packing, leaving on gasoline pipe.

Take off the four nuts and clamps holding manifolds to cylinder block, and remove old carburetor equipment complete.

Save the following parts for use with Holley Vaporizer:

Exhaust Manifold Nut (Large) (1). Gasoline Line Nut and Packing (2). Four Nuts and Clamps for holding Manifolds to Cylinder Block. Six Centering Rings which locate Manifolds to Cylinder Ports.

Attaching New Vaporizer The vaporizer is a complete assembly of carburetor, intake and exhaust manifolds—Do Not Take Apart as it is ready to attach to motor.

Place a centering ring in each manifold port, slip one new gasket over each ring. Lightly clamp vaporizer on motor (on some cars it may be necessary to bump a small depression in pan under float chamber). Pull up each clamp a little at a time to avoid any leaks between intake and cylinders.

Connect exhaust pipe to manifold with large nut (1). Similarly connect gasoline line with packing nut (2) to long elbow (3) pushing pipe into elbow as far as possible, then tightening nut (use old packing if possible).

Connecting Throttle Control Move throttle lever under steering wheel to closed position, clamp lever (4) lightly on throttle shaft (5) in the position shown, leaving space at "A" about $\frac{3}{8}$ " below spring collar. Close lever (6) on mixing chamber by pushing toward cylinder block. Control rod (7) should have the end with the extra bend inserted in eye of throttle lever (6). Insert other end in eye of clamp lever (4) and secure both with cotter pins.

Tap the clamp lever (4) on under side, moving it toward spring collar until all lost motion is taken out of levers and rod. Then tighten both clamp screws (8). If there is lost motion it will be impossible to run the motor at slow speeds.

Combined Needle Adjustment and Choke Rod In cars with wood dash drill a 1" hole to right of coil box, located as in Fig. 3 which is view looking from the seat. In cars with metal dash file out present hole or redrill to $\frac{3}{4}$ ". The location of the holes for both wood and metal dash varies with type of body given in Fig. 3. To locate hole in instrument board on cars where this is not provided use a string or wire anchoring to needle adjusting head (9), run through hole "B," the dash, hold string tightly under instrument board moving about until string is approximately in center of hole "B," then drill $\frac{5}{16}$ " hole through instrument

board, in line with and at the location of upper end of string. The combined needle adjustment and choke rod (10) must not bind—if it touches increase the clearance. Slip rod (10) through instrument board and dash, telescoping into adjusting sleeve (11). When rod is pushed down as far as it will go the adjusting head (12) should be $\frac{5}{8}$ " or more away from instrument board. Cut off squared end of rod if too long.

Some of the needle valve adjustment and choke rods (10) are shipped in two pieces. The coupling or sleeve is properly attached to long rod. The other with adjusting head (12) is to be slipped through instrument board hole, then into coupling at least $\frac{1}{2}$ " and set screw tightened. The rod (10) will then be one complete assembly.

On a few cars the rod (10) will come too close to the rear of number four clamp stud. If this occurs use present production clamp and cut off about $\frac{3}{8}$ " of stud. This will allow clearance for collar (13).

Attaching Choke Wire to Rod Hook choke wire (15) into eye of lever at (16). Lift up rod (10), slip through eye of choke wire first, then through collar (13). Drop rod into sleeve (11) making sure it is down as far as it will go. Slide collar (13) up on rod (10) leaving a slight clearance, then tighten set screw (14).

When rod (10) is pulled up it will choke carburetor. At the same time the rod may be turned to open or close needle.

The choke wire (18) should be connected for emergency and must be used on cars without starters. Use wire taken from old carburetor, hooking into eye (17) of lever on end of mixing chamber (19).

Starting and Adjusting Vaporizer Turn adjusting head (12) clockwise as far as it will go to close needle, then open $\frac{5}{8}$ to $\frac{7}{8}$ of a turn and start motor by pulling up head (12), as far as it will go. As soon as engine starts, push down head (12). When motor is warm adjust needle by turning head (12) for best running, and note this driving position.

On starting when cold the needle must be opened from the driving position before choking to warm up quickly. Do not open more

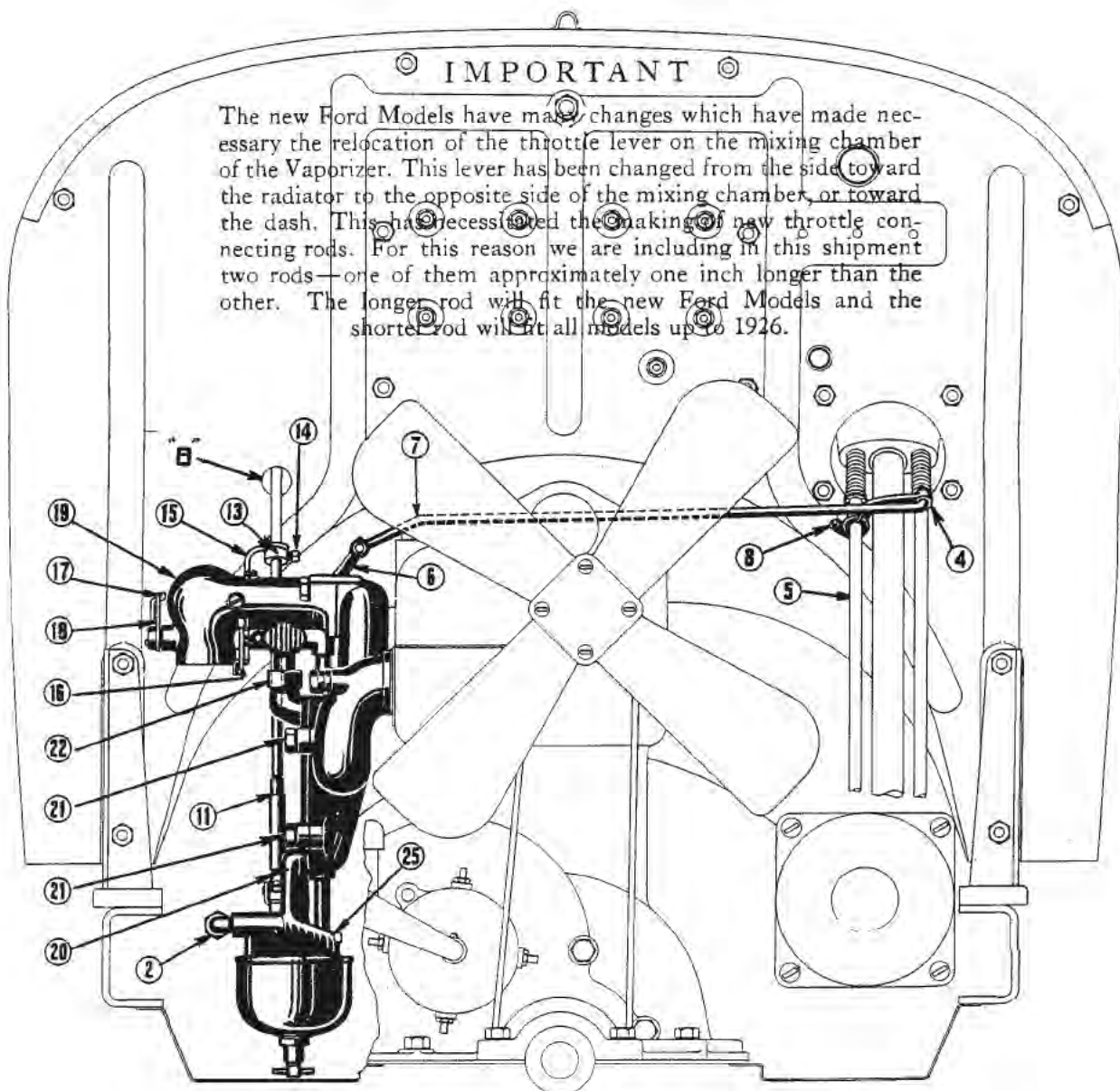


FIG-2

than $\frac{1}{2}$ extra turn, and return to driving position as soon as possible.

Idling Adjustment The speed of motor for idling is controlled by stop screw (26) on throttle lever (6). Turn screw until desired speed is obtained. When screw is backed off (anti-clockwise) and speed is not reduced the lever (4) is holding and should be turned away from motor by loosening one of the clamp screws (8), resetting, then tightening screw (8).

Removing Plate, Float Chamber, etc. First loosen union nut (22), shut off gasoline, disconnect packing nut (2), take out four hex. bolts (21). Cover (20) may be removed by gently tapping straight down until joint (25) on primary air tube is free.

In replacing, hold plate (24) in position on exhaust manifold, then start primary air tube into joint (25) and push up cover until holes for bolts (21) line up. Screw four bolts (21) lightly into place, but do not tighten until union nut (22) has *first* been made tight.

WATER POURED ON a hot metal surface will immediately turn into steam and rise in the air. Exactly the same thing happens when liquid fuel touches the *Hot Plate* in the Holley *Hot Plate Vaporizer*. It is the latest development for turning liquid into vapor.

Vaporization is caused by automatically bringing liquid fuel to a *Hot Plate* made of thin sheet steel, which covers a large opening in the exhaust manifold.

This *Hot Plate* is so thin that it becomes very hot as soon as the engine starts. The top of the *Hot Plate* will have a temperature of 600 degrees within two minutes after the engine starts.

As soon as the *Hot Plate* turns the liquid into vapor the vapor travels up to the mixing chamber where it is automatically mixed with cold air to form a mixture which the spark plug can easily ignite.

The Holley *Hot Plate Vaporizer* was designed for use with all Ford Passenger Cars and Ford Trucks. It is as applicable to Ford Models of all dates including this year's new models.

The slight differences in motor design do not conflict importantly with the instructions given for installation.

Principles and Advantages

Water poured on a hot stove lid changes almost instantly to steam. Gasoline sprayed on a hot metal plate turns almost instantly to vapor. This in short is the principle of the Holley *Hot Plate Vaporizer* which depends for its action upon a very thin steel plate covering a large aperture in the front of the exhaust manifold.

The plate becomes heated by the exhaust gases as soon as the engine starts. After a few revolutions it is so hot that it will completely vaporize even the lowest grade oils in the lowest grade gasoline—oils which are not



vaporized by ordinary methods and are therefore not only wasted but are allowed harmfully to trickle past the piston rings into the crankcase. With the Holley *Hot Plate Vaporizer* every particle of the gasoline is utilized and turned into power.

7 Advantages

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| High Test Performance | With low-grade gasoline—even the oils with the lowest flash points completely vaporized—every thermal unit utilized toward the creation of power. |
| More Speed | Increased acceleration and power. |
| Crankcase Dilution Eliminated | Better lubrication—less wear and tear of the motor—no waste of gasoline. |
| Smoother Operation at all Times | Positive acceleration at all speeds. |
| Less Use of the Choke | Starting is made easier—no need for rechoking—restarting in cold weather facilitated. |
| Warms Up Fast in the Coldest Weather | Never overheats in the warmest weather. |
| Relieves Carbon Troubles | Gasoline carbon is practically entirely consumed—no gummy carbon formed. |

Holley Carburetor Company
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